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THEM

(57) Abstract: In one aspect, the invention provides xylose isomerase enzymes, polynucleotides encoding the enzymes, methods of making and using these polynucleotides and polypeptides. The polypeptides of the invention can be used in a variety of agricultural and industrial contexts. For example, the polypeptides of the invention can be used for converting glucose to fructose or for manufacturing high content fructose syrups in large quantities. Other examples include use of the polypeptides of the invention in confectionary, brewing, alcohol and soft drinks production, and in diabetic foods and sweeteners.

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